



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 CHICAGO REGIONAL LABORATORY
536 SOUTH CLARK STREET
CHICAGO, ILLINOIS 60605

Date: 8/12/2010

Subject: Review of Region 5 Data for R06 Deep H2O Horizon

From: David Schroeder
Region 5 Chicago Regional Laboratory

To: Region 6, US EPA
10625 Fallstone Road
Houston, TX 77099

The data being transmitted under this cover memo successfully passed CRL's internal data review procedures as documented in our current Quality Management Plan (QMP) and appropriate Standard Operating Procedures (SOPs). Please be aware that CRL does not perform data validation which is based on your data quality objectives. This function must be performed independently of the laboratory generating the data.

Results in this report represent only the samples analyzed.

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at (312) 353-7444 for any comments or questions.

Attached are Results for: R06 Deep H2O Horizon

_____/_____/_____
Data Management Coordinator and Date Received

Date Transmitted: ____/____/____

Analyses included in this report:

RAM-DOSS



Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA
10625 Fallstone Road
Houston TX, 77099

Project: R06 Deep H2O Horizon
Project Number: T0001-100405-20100806-003
Project Manager: Kristie Warr

Reported:
Aug-12-10 11:33

ANALYSIS CASE NARRATIVE Analyst: David Schroeder (312) 353-3100

General Information

Twenty-eight samples were received by the Chicago Regional Laboratory and prepared for dioctyl sulfosuccinate (DOSS) analysis on August 10, 2010. The sample sets from Chalmete, LA were insufficient to perform matrix spike and matrix spike duplicate preparations. Kristie Warr was emailed about this sampling issue. The samples were received at or less than 6°C.

Sample Analysis and Results

Analysis of dioctyl sulfosuccinate in water by LC/MS/MS was carried out using CRL Region 5 Regional Analytical Method for Dioctyl Sulfosuccinate (RAM-DOSS, CAS 577-11-7) in Sea Water by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS).

The T007-1332-100806-SW-03-1 sample, collected August 6, 2010 at 12:05 near Grand Isle, LA, contained 24.0 ppb dioctyl sulfosuccinate anion. The presence of DOSS was confirmed by the detection of the confirmatory ion. After the official analysis, the sample preparation was subsampled and analyzed, August 11, 2010. This analysis further confirmed the presence of the DOSS in the filtered sample.

Samples shipped from the samplers, with the same sample number, were not duplicates of one solution. The samples shipped as duplicates were consecutively collected co-located samples, rather than duplicates of one sample. One T007-1332-100806-SW-03-1 co-located sample was prepared and analyzed the day after the official analysis. The DOSS result for the co-located sample was less than the reporting limit (20 ppb) and method detection verification limit (6 ppb). The difference in response may be due in part to the peristaltic-pump consecutive sample collections.

DOSS is surface active. The surface activity results in DOSS adhering to many materials. Sampling techniques that expose samples to materials other than the sample container may reduce DOSS concentration in samples. Sampling techniques such as peristaltic pumping expose the sample to large surface areas compared to sample volume. DOSS association with peristaltic tubing materials likely result in bias low DOSS concentrations in laboratory samples.

The 1008015, 1008016, 1008017 and 1008018 supporting data are stored with 1008014.

Quality Control

All quality control criteria not mentioned met acceptance limits stated in the method.



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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T001-2414-100807-SW-02-1	1008015-01	Water	Aug-07-10 10:00	Aug-10-10 09:02
T001-2415-100807-SW-01-1	1008015-02	Water	Aug-07-10 12:00	Aug-10-10 09:02
T001-0001-100806-SW-03-1	1008015-03	Water	Aug-06-10 10:30	Aug-10-10 09:02
T001-0002-100806-SW-02-1	1008015-04	Water	Aug-06-10 09:15	Aug-10-10 09:02
T001-1001-100809-SW-1	1008015-05	Water	Aug-09-10 10:40	Aug-10-10 09:02
T001-1003-100809-SW-1	1008015-06	Water	Aug-09-10 09:25	Aug-10-10 09:02
T001-1409-100806-SW-00-1	1008015-07	Water	Aug-06-10 12:00	Aug-10-10 09:02
T001-2343-100808-SW-07-1	1008015-08	Water	Aug-08-10 09:50	Aug-10-10 09:02
T001-2343-100808-SW-07-2	1008015-09	Water	Aug-08-10 09:50	Aug-10-10 09:02
T001-2363-100808-SW-06-1	1008015-10	Water	Aug-08-10 12:00	Aug-10-10 09:02



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Analysis by LC MS MS

US EPA Region 5 Chicago Regional Laboratory

T001-2414-100807-SW-02-1 (1008015-01) Water Sampled: Aug-07-10 10:00 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 172 99.1 % 50-150 " " "

T001-2415-100807-SW-01-1 (1008015-02) Water Sampled: Aug-07-10 12:00 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 187 108 % 50-150 " " "

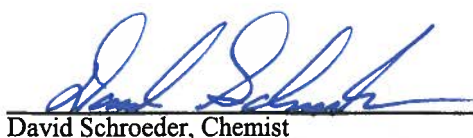
T001-0001-100806-SW-03-1 (1008015-03) Water Sampled: Aug-06-10 10:30 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 158 92.6 % 50-150 " " "

T001-0002-100806-SW-02-1 (1008015-04) Water Sampled: Aug-06-10 09:15 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10


David Schroeder, Chemist



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Reported:
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Analysis by LC MS MS

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T001-0002-100806-SW-02-1 (1008015-04) Water Sampled: Aug-06-10 09:15 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Surrogate: DOSS-D34	132			77.6 %		50-150	B100841	Aug-10-10	Aug-10-10

T001-1001-100809-SW-1 (1008015-05) Water Sampled: Aug-09-10 10:40 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 161 95.0 % 50-150 " " "

T001-1003-100809-SW-1 (1008015-06) Water Sampled: Aug-09-10 09:25 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 184 109 % 50-150 " " "

T001-1409-100806-SW-00-1 (1008015-07) Water Sampled: Aug-06-10 12:00 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 181 108 % 50-150 " " "

T001-2343-100808-SW-07-1 (1008015-08) Water Sampled: Aug-08-10 09:50 Received: Aug-10-10 09:02

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T001-2343-100808-SW-07-1 (1008015-08) Water Sampled: Aug-08-10 09:50 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diocetyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 104 62.2 % 50-150 " " "

T001-2343-100808-SW-07-2 (1008015-09) Water Sampled: Aug-08-10 09:50 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diocetyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 107 62.6 % 50-150 " " "

T001-2363-100808-SW-06-1 (1008015-10) Water Sampled: Aug-08-10 12:00 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diocetyl sulfosuccinate	U	U		20.0	ug/L	1	B100841	Aug-10-10	Aug-10-10

Surrogate: DOSS-D34 104 60.8 % 50-150 " " "

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Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

Batch B100841 - *** DEFAULT PREP ***

Blank (B100841-BLK1)

Prepared & Analyzed: Aug-10-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	U	U		20.0	ug/L						

Surrogate: DOSS-D34 215 " 204.1 105 50-150

LCS (B100841-BS1)

Prepared & Analyzed: Aug-10-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	193			20.0	ug/L	198.0		97.4	50-150		

Surrogate: DOSS-D34 173 " 198.0 87.5 50-150

LCS Dup (B100841-BSD1)

Prepared & Analyzed: Aug-10-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	184			20.0	ug/L	200.0		92.2	50-150	4.50	30

Surrogate: DOSS-D34 174 " 200.0 86.8 50-150



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Batch B100841 - *** DEFAULT PREP ***

Duplicate (B100841-DUP1)				Source: 1008015-01								Prepared & Analyzed: Aug-10-10			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
diethyl sulfosuccinate	U	U		20.0	ug/L		U				200				

Surrogate: DOSS-D34 169 " 173.9 96.9 50-150

Matrix Spike (B100841-MS1)				Source: 1008015-01								Prepared & Analyzed: Aug-10-10			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
diethyl sulfosuccinate	134			20.0	ug/L	190.5	U	70.2	50-150						

Surrogate: DOSS-D34 133 " 190.5 69.9 50-150

Matrix Spike Dup (B100841-MSD1)				Source: 1008015-01								Prepared & Analyzed: Aug-10-10			
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit				
diethyl sulfosuccinate	149			20.0	ug/L	171.7	U	86.7	50-150	10.8	30				

Surrogate: DOSS-D34 135 " 171.7 78.8 50-150



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Notes and Definitions

U Not Detected
NR Not Reported